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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,512	05/31/2000	Li Wu	4658	4227
32588	7590	07/13/2005	EXAMINER	
APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050			ROSE, ROBERT A	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/583,512	Applicant(s) WU ET AL	
	Examiner Robert Rose	Art Unit 3723	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-26 and 43-68 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-55, 67 and 68 is/are allowed.
- 6) ☒ Claim(s) 14-17-18, 23-26, 56-59, 60-61, 65-66 is/are rejected.
- 7) ☒ Claim(s) 19-22 and 62-64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                            |                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/05</u> | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

1. Receipt is acknowledged of Applicant's Prior Art Statement, filed April 25, 2005.
2. Claims 1-13, and 27-42 have been canceled.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 14-15, 17-18, 24, 56-58, 60-61, and 66 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Church et al. Church et al discloses a method of polishing a substrate comprising all of the subject matter set forth in the claims above. The method comprises a two-step process, with a first relative motion for a rough lapping stage followed by a second relative motion in the form of a micro-advanced linear lapping stage.
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Church et al in view of Tanaka et al. To provide coolant passageways in the polishing

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platen of Church et al to control the temperature during polishing would have been obvious in view of Tanaka et al.

7. Claims 16, 23, 59, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Church et al in view of Kitta et al. To rotate the polishing pad in a second opposite direction to provide better slurry distribution would have been obvious in view of Kitta et al.

8. Claims 19, 20-22, 62-64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 43-55, and 67-68 are allowed.

10. Applicant's arguments filed April 25, 2005 have been fully considered but they are not persuasive. Applicant's amendments to independent claims 18, 25, 43, 54, 56, are such that the reference to Church et al applied in the first Office action are deemed to meet the limitations therein. Church et al disclose a two-step lapping method with relative rotary pad motion in the first step and linear lapping motion in the second step. Kitta et al and Tanaka et al were applied for their respective teachings of reversing the direction of the rotary pad in the first lapping step of Church et al to provide better slurry distribution, and providing coolant passageways in the polishing platen of Church et al to control the temperature during polishing, respectively.

11. In view of the new grounds of rejection applied against the claims, this action is not made final.

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12. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (571) 272-4494.

rr

July 8, 2005.

A handwritten signature in black ink, appearing to read 'Robert A. Rose', with a stylized flourish at the end.

ROBERT A. ROSE  
PRIMARY EXAMINER  
ART UNIT 323